

PROCEEDINGS OF LEARNED SOCIETIES.

GEOLOGICAL SOCIETY.

March 12, 1890.—J. W. Hulke, Esq., F.R.S., Vice-President, in the Chair.

The following communications were read:—

1. "On a Crocodilian Jaw from the Oxford Clay of Peterborough." By R. Lydekker, Esq., B.A., F.G.S., &c.

The symphysis of the mandible of a Thecodont Reptile obtained by Mr. Leeds from the Oxford Clay near Peterborough was described by the Author, and reasons were given for referring it to the Crocodilia rather than to the Sauropterygia. An imperfect skull found by Mr. Leeds in the same formation at Peterborough appears to belong to the same form as the mandible, and shows that the latter cannot be referred to *Machimosaurus*.

After reviewing the whole of the evidence, the Author concluded that he was dealing with a Crocodilian allied to *Metriorhynchus*, but forming the type of a new genus, to which he gave the name of *Suchodus*, adding the specific name of *durobrivensis*.

2. "On two new Species of Labyrinthodonts." By R. Lydekker, Esq., B.A., F.G.S., &c.

The right ramus of the lower jaw of a Labyrinthodont, from the Lower Carboniferous of Gilmerton, near Edinburgh, is regarded as referable to the Permian genus *Macromerium*, and it is proposed to describe it as *M. scoticum*.

Another mandible, from the Karoo system of South Africa, is referred to the American Permian genus *Eryops* under the name *E. Oweni*.

March 26, 1890.—J. W. Hulke, Esq., F.R.S., Vice-President, in the Chair.

The following communications were read:—

1. "On a new Species of *Cyphaspis* from the Carboniferous rocks of Yorkshire." By Miss Coignou, Cambridge. (Communicated by Professor T. M^cK. Hughes, M.A., F.R.S., F.G.S.)

The Author describes a fairly perfect head of a Trilobite found in the Pendleside limestone of Butterhaw, near Cracoe, which appears to belong to the genus *Cyphaspis*, though it differs from the typical species of that genus in possessing two pairs of glabellar lobes. The name *Cyphaspis acanthine* is proposed for this form.

2. "A Monograph of the Bryozoa (Polyzoa) of the Hunstanton Red Chalk." By George Robert Vine, Esq. (Communicated by Prof. P. Martin Duncan, F.R.S., F.G.S.)

The fossils examined occurred on tests of Echinoderms and on the shells of *Terebratula biplicata*, *T. capillata*, Oysters, *Inocerami*, *Nautili*, and Ammonites. The best of the forms of *Diastopora* and *Proboscina* are found on *Inocerami* and Ammonites, but the most abundant individuals are *Stomatopora*, chiefly on *Terebratula biplicata*. Species of *Entalophora*, *Idmonea*, and "*Ceriopora*" are very rare or badly preserved, and Chilostomatous forms are also very rare.

In the present monograph the Author felt obliged to limit or re-define the generic terms employed, and proceeded to describe in detail the forms which he has examined from the Hunstanton Red Chalk and other Cretaceous deposits, including the following new forms:—*Proboscina irregularis*, *P. uberta*, *P. gracilis*?, var. *Reussi*, *P. claviformis*, *P. hunstantonensis*, and var. *ampliata*, *P. Jessoni*, *P. gigantopora*, *P. dilatata*, var. *cantabrigiensis*, *Diastopora hunstantonensis*, *D. fœcunda*, *D. Jessoni*, and *Membranipora gaultina*.

April 16, 1890.—J. W. Hulke, Esq., F.R.S., Vice-President, in the Chair.

The following communication was read:—

"On Ornithosaurian Remains from the Oxford Clay of Northampton." By R. Lydekker, Esq., B.A., F.G.S.

Seven vertebræ, portions of the ilia and ischia, one femur, and the distal portion of that of the opposite side, part of a bone, probably from the shaft of the tibia, and two undetermined fragments, all associated, indicate the existence in England during the Oxford-Clay period of the species of *Rhamphorhynchus* provisionally referred to *R. Jessoni*, though not definitely distinguished from *R. Gemmingi*.

Amongst the noticeable features of the specimens are the presence of a distinct rib-facet at the lateral border of the inferior surface of the centrum of the cervical vertebræ, proving the existence of cervical ribs, and the character of the neural spine of a dorsal vertebra, which strikingly recalls that of a bird.

May 14, 1890.—Dr. A. Geikie, F.R.S., President, in the Chair.

The following communications were read:—

1. "On some new Mammals from the Red and Norwich Crags." By E. T. Newton, Esq., F.G.S.

This paper contains descriptions of mammalian remains from the English Pliocene belonging to eight species, nearly all being new to

the Crags, and four of them new to science. A remarkable low-crowned, but broad, lower carnassial tooth from the Norwich Crag of Bramerton is referred to the genus *Lutra*, and named specifically *L. Reevei*. All the other specimens noticed below are from the nodule-bed at the base of the Suffolk Red Crag, and the first four of them are in the possession of Mr. E. C. Moor, of Great Bealings. A right ramus of a lutrine lower jaw, differing from the common Otter in having the hinder fangs of the premolars much larger than the front ones, and agreeing in this particular with the *Lutra dubia* of DeBlainville, is referred to the latter species. A humerus of a Seal, most nearly resembling that of *Phoca vitulina*, but of smaller size and more slender proportions, is called *Phoca Moori*. Another Seal's humerus, having a peculiarly triangular shaft, is thought to belong to the *Phocanella minor* of Van Beneden. A maxilla with three teeth, evidently belonging to the genus *Trogotherium*, but of smaller size than the *Trogotherium Cuvieri*, is believed to represent another species, and is named *T. minor*. The ziphioid rostrum in the Ipswich Museum, which received from the Rev. H. Canham the MS. name of *Mesoplodon Floweri*, is for the first time described; and another rostrum in the Museum of Practical Geology, characterized by being very short and with a deep boat-like anterior extremity, is named *Mesoplodon scaphoides*. The peculiar species *Ailurus anglicus*, hitherto known only by a piece of a lower jaw with a carnassial tooth, is now further illustrated by a fine upper molar recently presented to the Museum of Practical Geology.

2. "On Burrows and Tracks of Invertebrate Animals in Palæozoic Rocks, and other Markings." By Sir J. William Dawson, LL.D., F.R.S., F.G.S.

This paper, which is illustrated by photographs and drawings, indicates some new facts in connexion with the markings produced by the burrows and tracks of animals and by other causes. *Rusichnites* and *Cruziana* are regarded, like *Climactichnites* and *Protichnites*, as representing probable burrows of Crustaceans and Chætopod worms. *Scolithus canadensis* is shown to be a cylindrical burrow, with accumulations of earthy castings at its mouth. The relation of these burrows to the forms known as *Scotolithus*, *Asterophycus*, *Monocraterion*, and *Astropolithon* is pointed out.

Under the new generic name of *Sabellarites* the Author describes certain tubes, composed of shelly and other fragments cemented by organic matter, found in the Trenton Black-river Limestone. They resemble the burrows or tubes formerly described by the Author from the Hastings and Quebec Groups, and appear to be the tubes of worms allied to the recent *Sabellariæ*: but they are liable to be mistaken for Algæ of the genera *Palæophycus* and *Buthotrephis*.

Some large cylindrical bodies from the Potsdam Sandstone are described as having been supposed to be trunks of trees; but the Author regards them as probably concretions formed around slender

stems, like some now forming in the alluvial mud of the St. Lawrence.

Some curious combinations of worm-tracks with ripple-marks and shrinkage-tracks are described; as also branching or radiating worm-trails, which present some resemblance to branching Fucoids. Finally, the Author describes the formation of rill-marks on the mud-banks of the tidal estuaries of the Bay of Fundy, and indicates their identity with some impressions in slabs of rock which have been described as Fucoids under several generic names.

May 21, 1890.—Dr. A. Geikie, F.R.S.,
President, in the Chair.

The following communications were read:—

1. "On some Devonian and Silurian Ostracoda from North America, France, and the Bosphorus." By Prof. T. Rupert Jones, F.R.S., F.G.S.

Of the Devonian species herein figured and described, six species and one variety (four being new) from the decomposed Chert of the Corniferous Limestone of Ontario County, in the State of New York, and new species from the Hamilton Group of Clarke Co., Indiana, have been sent by Mr. J. M. Clarke, of Albany, N. Y., as mentioned in the February number of the Quart. Journ. Geol. Soc. p. 14. From Eighteen-mile Creek, Lake Erie, N. Y., there are two new Devonian species among specimens supplied by Dr. Hinde (*op. cit.* p. 28), and two new *Primitia* from Thedford. Altogether five genera (*Bollia*, J. & H., *Moorea*, J. & K., *Octonaria*, J., *Eurychilina*, Ulrich, and *Ulrichia*, gen. nov.) are hereby added to the list of "Hamilton" fossils.

The Devonian *Beyrichia* collected some years ago by M. Dumont at the Bosphorus, and noticed by Dr. Ferd. Römer in the 'Neues Jahrbuch' for 1863, having been kindly lent by M. Dewalque for examination, is figured and described in detail. It appears to be the same as *B. devonica*, Jones, lately described from Devonshire.

Nine new species from Anticosti, in Dr. Hinde's collection, alluded to above, are here figured and described. They are from Mr. Billings's "Anticosti Group" (Divisions 3, 2, 1, and the lowest). The lowest and Div. 1 are both now regarded as of Lower Silurian age, and Divs. 2 and 3 are either Middle or Upper Silurian. A series of Silurian Ostracoda from Canada, submitted by Mr. Whiteaves, F.G.S., and Mr. Ami, F.G.S., have been examined, and critical notes on them are here given.

The Lower-Silurian *Beyrichia Guilleri*, named and compared with other species by M. G. de Tromelin at Nantes in 1875, who found it at Domfront and elsewhere in Brittany, is also figured and described in detail.

2. "On a new species of *Coccodus* (*C. Lindströmi*, Davis)." By J. W. Davis, Esq., F.G.S.

A description is given of a small fossil fish from the hard chalk of Hakel in Mount Lebanon; it is nearly related to *Coccodus armatus*, Pictet, but is smaller than that species, does not show an equivalent of the pectoral spine (unless the posterior extension of the scapular arch should be so considered), and the posterior basal extension of the dorsal spine is very different in the two forms. Further, the dorsal spine is nearer to the occipital region in the new form than in *C. armatus*, and is, compared with the size of the fish, a larger fin.

The arrangement of the fins shown in the specimen now described is quite different to that of the Siluroids (*Synodontis* and *Pimelodus*), and the great resemblance of the teeth of *Coccodus* to those of the Pycnodonts, and the cartilaginous character of the vertebræ, indicate a relationship with the Ganoids; but its exact relationship in that group must remain still problematical.

The Author proposes to name the new form *Coccodus Lindströmi*.

June 4, 1890.—Dr. A. Geikie, F.R.S.,
President, in the Chair.

The PRESIDENT referred to the sad loss which the Society had sustained through the death of Mr. Dallas, and read the following resolution, which had been passed by the Council and ordered to be entered upon its Minutes.—

"The Council desires to record on its Minutes an expression of its deep regret at the death of the Assistant-Secretary, Mr. Dallas, which took place on the 29th ultimo, and of its sense of the loss inflicted on the Council and Society by the removal of one who, for the long period of twenty-two years, had done them invaluable service, and who, by his courtesy, kindness, and helpfulness had endeared himself as a personal friend to the Fellows."

The following communication was read:—

"North-Italian Bryozoa." By A. W. Waters, Esq., F.G.S.

The Chilostomatous Bryozoa dealt with in the paper are, for the most part, from known Vicentine localities, together with some from two new localities,—Monte Baldo in the Veronese and Ronzo in the Tyrol. Reuss described a number from the Vicentine, but at a time when the chief attention was given to the shape of the zoarium, and the oral aperture, avicularia, and ovicells did not receive the attention now given to them. The attempt is therefore made to bring our knowledge of these beds, which are the richest and most important known in the Lower Tertiaries, more nearly up to present ideas, so that more exact comparisons may be made between Tertiary and living forms.

Several cases are mentioned in which there is great difference of zoarial shape, and also some in which there is great range in the zoecial characters.

The discovery of *Catenicella* in these beds is of considerable importance, which is enhanced by one of the species having both short beads and longer internodes.

Porina coronata and *Lepralia syringopora* both have a closure, formed by a plate with a tubule in the centre, a structure supposed to be exclusively characteristic of the Cyclostomata.

The position of the beds has been established by Suess, Bayan, Hébert, and Munier-Chalmas, of Bartonian age, and may therefore be called Upper Eocene.

MISCELLANEOUS.

WILLIAM SWEETLAND DALLAS.

IT is with deep regret, which we are sure will be shared by our readers, that the name of one who has for so many years taken a most active part in the conducting of this Magazine disappears from the titlepage. Our dear friend became one of the Editors in 1868; but long before this he had rendered the greatest service in bringing to the knowledge of British Naturalists the most important researches of Foreign investigators.

For some time past his health had been failing, and on the 29th of May he passed away, to the sad grief of his family and a large circle of friends.

WILLIAM FRANCIS.

Description of a new Cottoid Fish.

By TARLETON H. BEAN, Ichthyologist, U. S. Fish Commission.

On the 27th of September, 1888, the U. S. Fish Commission steamer 'Albatross' obtained in Barclay Sound, British Columbia, a remarkable little fish whose affinities are with the *Cottidae*, but differing from all the other members of the family in characters of such importance as to necessitate the formation of a new subfamily to receive it. The description is given herewith.

Subfamily SYNCHIRINÆ.

Cottidæ with ventral fins thoracic, but remote from the gill-